

4,985,585

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Likewise as in Example 32, the title compound was obtained as yellow oil with yield of 63.4%. Mass spectrum (m/z): 362 (M⁺), 364 (M⁺ + 2).

EXAMPLE 69-71

Likewise as in Example 16 and 31, the compounds listed in Table 6 were synthesized.

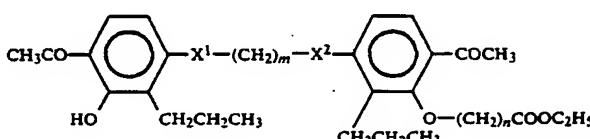


TABLE 6

Ex.	X ¹	X ²	m	n	Yield (%)	mp (°C.)	Analysis (%)	Calcd./Found
69	SO	S	3	3	69.9	oil	C: 63.02 63.03	H: 7.17 7.16
70	SO ₂	S	3	3	77.8	oil	C: 61.36 61.44	H: 6.98 6.98
71	SO ₂	SO	3	3	68.3	oil	C: 59.78 59.97	H: 6.80 6.85

EXPERIMENT 1

Inhibition test of bronchoconstriction in guinea pigs

Male Hartley guinea pig weighing about 450 g was anesthetized with sodium pentobarbital (30 mg/kg, i.p.), and the changes in transpulmonary pressure was measured according to the modified method of Konzett-Rössler (J. Harvey et al., J. Pharmacol. Method. 9, 147-155, 1983). Bronchoconstrictor response was induced by injection of leukotriene D₄ (3 µg/kg) into left jugular vein. Further, indomethacin and propranolol were injected into vein of the animal, prior to the injection of leukotriene D₄. Test compounds suspended in 5% solution of Gum Arabic were administered orally 2 hours before the injection of leukotriene D₄. The results of the Experiment are shown in Table 7.

TABLE 7

Example	Dose (mg/kg,p.o.)	Inhibition (%)
33	(1)	
	3.125	28.0
	6.25	40.2
	12.5	63.9
	50	94.8
35	6.25	10.7
	12.5	51.3
	50	92.4
45	1.56	22.4
	3.125	54.2
	6.25	71.3
	12.5	72.7

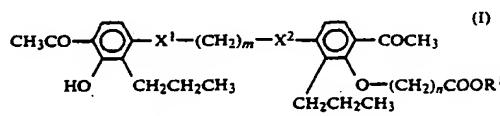
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TABLE 7-continued

Example	Dose (mg/kg,p.o.)	Inhibition (%)
5	46	50 3.125 6.25 12.5 50
	47	3.125 12.5 50
	48	3.125 12.5 50
	49	6.25 12.5 50
	53	(2) 3.125 6.25 12.5 50
	55	6.25 12.5 50

What is claimed is:

1. A phenoxyalkylcarboxylic acid derivative represented by the following general formula (I),



wherein R¹ indicates hydrogen atom, methyl group or ethyl group, m is an integer from 2 to 5, n is an integer from 3 to 8, and X¹ and X² each independently represent sulfur atom, oxygen atom, sulfinyl group or sulfonyl group, proviso X¹ and X² are not simultaneously oxygen atom; their alkali salt or hydrate.

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